



# AM-7 MIXER

**Citronic Limited,**  
Technical Services Department,  
Halifax Road,  
Bowerhill,  
Melksham  
Wiltshire  
SN12 6UB England.  
Tel : 01225 705725 Int: +44 1225 705725  
Fax: 01225 709639 Int: +44 1225 709639

**CITRONIC**

Citronic Limited, innovative leaders in the manufacture of professional audio equipment are proud to present the AM-7 Mixer.

Established in Melksham Wiltshire, in 1972, the company occupies prestigious purpose built factory headquarters.

The Company's award winning product range covers professional audio Mixers, Amplifiers and Signal Processing. Each unit is manufactured to the highest possible standards, and all have an enviable reputation and value for money - the noted hallmark of Citronic products.

Substantial investment has been made in high technology CAD systems, manufacturing control and testing techniques. This sophisticated computerisation, coupled with an extensive research and development program, enable the company to offer an exceptional degree of manufacturing excellence and quality assurance.

Citronic has always listened carefully to the customer, and places tremendous emphasis on market research. This ensures that the exacting requirements of the installer and operator are complemented, without compromise, throughout the entire product range. This unique approach, coupled with a strong input from a highly qualified engineering team, ensures that Citronic maintains its position as a respected leader, in the industry's development.

Citronic has a distribution network throughout Europe, Asia and the Americas.

**WARNING**

In order to obtain the best service from the unit we STRONGLY recommend that you read this manual before you apply any power.

**Your Guarantee of Satisfaction**

This product is guaranteed to the original purchaser against defects in material and workmanship for one year from the date of initial purchase. Activate this guarantee at the time of purchase by returning the Guarantee Card to the address on the front page. Keep a copy of your sales receipt for proof of guarantee status, should it be necessary.

The crossfader itself is a replaceable part and is only guaranteed against defective workmanship. The slider selected for the crossfader function has been chosen for its excellent mechanical properties. In a discotheque application the extensive use of this facility means that the number of operations in a twelve month period can exceed the manufactures electrical specification.

If a malfunction occurs, the dealer who supplied the unit will be happy to handle the repair. When returning a unit, use the original factory carton - do not chance inadequate packing materials. Simply tape a note to the unit describing the malfunction.

If your unit is out of guarantee, we recommend that you return it to an authorised Citronic dealer for repair or service. Experienced personnel, supported by specialist testing equipment, will be able to find and correct the fault in the most efficient and cost effective way.

**8: CE Marking****EMC Conformity**

The AM-7 has been tested to demonstrate compliance with the EMC 89/336/EEC directive, under which the following harmonised standards apply:

- |                  |                                 |
|------------------|---------------------------------|
| i) EN55020       | Electromagnetic Immunity        |
| ii) EN61000-4-2  | ESD Immunity                    |
| iii) EN61000-4-4 | Voltage Transient Immunity      |
| iv) EN58001-1    | Generic Emissions Compatibility |

**Electrical Equipment Safety Regulation (1994)**

The AM-7 has been designed and tested to demonstrate compliance to the LVD 73/23/EEC directive, using the following standard.

- |            |  |
|------------|--|
| i) EN60065 | Safety Requirements for mains operated electronic equipment for household and similar general use. |
|------------|--|

<b>1-About Citronic:</b>	<b>page 2</b>
<b>2-Contents:</b>	<b>page 3</b>
<b>3-Introduction:</b>	<b>page 3</b>
<b>4-Features:</b>	<b>page 4</b>
<b>5-Illustration:</b>	<b>page 6</b>
<b>6-Technical Specification:</b>	<b>page 9</b>
<b>7-Guarantee:</b>	<b>page 10</b>
<b>8-CE Marking:</b>	<b>page 10</b>

**3: The AM-7 Professional DJ Mixer**

A fully featured professional quality DJ mixer offering complete control over the audio path in a P.A. System.

There are 7 inputs comprising of 1 mic, 2 CD and 2 RIAA phono inputs which can be switched to take LINE level signals. The 6 stereo inputs are configured into 3 main music channels controlled by 45mm quality faders with each channel being fully assignable to the onboard dipless crossfader.

The microphone input and master stereo output channels have separate EQ, 2 band for the mic and 3 band for music.

As well as a master output there is a Booth output with separate level control and a record out which is independent of the Master output level slider.

Stereo headphone output, PPM Peak Hold VU ladders, PFL and OUTPUT monitoring, and microphone override complete the mixers functions housed in a rugged 4U x 19" rack mounting package.

## 1. POWER Switch and Power On LED

The red LED glows when the Mixer is on. Always ensure the mixer is powered up before power amps to avoid DC thumps which may cause damage to the P.A. System.

## 2. 12 Volt LIGHT

For the connection of a mixing board overhead lamp with a BNC plug.

## 3. Stereo Auto Peak Hold Level Indicator

This meter is fast and accurate. The LED's for -7 through to +10 will hold program peaks momentarily. If the red LED's blink at peak, this is acceptable. Continuous light from these red LED's means overload and distortion, or clipping conditions. Proper attention to the peak meters results in dynamic sound without audible distortion.

## 4. PHONO/LINE Switches

These switches select between the rear-panel Phono (RIAA) and Line inputs.

## 5. Input Slider

These control individual source levels in the mix.

## 6. MC Lo and Hi EQ Controls

These controls fine-tune the tone of your voice through the sound system. The controls are detented for setting tone 'flat'.

## 7. DJ MC

This fader controls the volume settings of the microphone.

## 8. MC Input

The microphone input is designed for a low impedance, unbalanced type of microphone and utilises a 1/4" phone plug.

## 9. OVERRIDE Switch

When engaged, this switch will lower the music mix by 14dB, while leaving the microphone at the existing volume level set by its fader for announcements, etc. When disengaged the music mix will return to the previous level.

## 10. MASTER Level

This controls overall output level.

## 11. BOOTH Level

This pot controls booth volume. If you do not use booth monitors the output can feed a tape deck, another amplifier, another mixer or a satellite speaker system.

Parameter	Mic	Phono	Line/CD
Sensitivity:	-53dBu (1.8mV)	-46dBu (4mV)	0dBu (775mV)
Input Impedance:	2K	47K	50K
Source Z Ohm:	150 Ohm	600 Ohm	2K Ohm
Max Gain:	53dB	RIAA	0dB
S/N Ratio:*	-	>70dB	90dB
Freq Response:**	16Hz to 17KHz	RIAA	<10Hz to 35KHz
THD:**	< 0.2%	-	< 0.01%

## Microphone Equalisation

Lo	=	± 12dB @ 100Hz
Hi	=	± 12dB @ 10KHz

## Music Channel Equalisation

Lo	=	± 12dB @ 100Hz
Mid	=	± 12dB @ 1KHz
Hi	=	± 12dB @ 10KHz

## Noise Floor:

Main L,R Output:	<- 90dBu
Mic Pre-Amp T.E.I.N. :	- 115dBu

## Headphones:

Load:	32 Ohms MIN
Power:	92mW @ 32 Ohms
Freq Response:**	30Hz to 30KHz
S/N:	79dB

## Output

Master L, R Output:	Unbalanced Phono:	0 dBu (775mV RMS)
Rec. L, R Output:	Unbalanced Phono:	-6dBu (380mV RMS)
Booth Outputs:	Unbalanced Phono:	0 dBu (775mV RMS)

## Dimensions:

Width:	482mm
Height:	176mm
Depth:	83mm
Weight:	3.4kg

## Cut-out required:

Width:	440mm
Height:	165mm

Note: \* : Measured at output 22Hz-22kHz Filtered  
 \*\* : Measured at 1 dB a w.r.t. a 0dB ref at Mixer Output  
 \*\*\* : Measured at mixer output, 30kHz Filtered

**21. GND**

The GND is a terminal for grounding turntables to eliminate hum.

**22. REC Output**

Stereo output for connection of an outboard tape deck. This output is post EQ but is not affected by the master output control.

**23. MASTER Output**

The stereo outputs are low impedance, unbalanced RCA phonos. The output level is controlled by the master fader.

**24. BOOTH Outputs**

These outputs are low-impedance unbalance RCA phonos controlled by the Booth Level knob.

**25. AC Supply Lead**

The AM-7 is supplied in either of the following voltage variants with the AC lead terminated in a moulded plug thus:

<b>230VAC:</b>	<b>U.K.</b>	- 3 Pin Plug (Earthed)
<b>220VAC:</b>	<b>Euro</b>	- 2 Pin Plug (Earthed)
<b>115VAC:</b>	<b>U.S.A.</b>	- 2 Pin Plug (Earthed)

**CAUTION:** If the AC supply to the mixer is not via the supplied moulded plug, ensure the wiring of the lead is as below:

Cable colour code:

	<b>U.K./Euro</b>	<b>U.S.A</b>
<b>Live:</b>	Brown	Black
<b>Neutral:</b>	Blue	White
<b>Earth:</b>	Yellow/Green	Green

**WARNING:** This mixer must be earthed.

**26. Power FUSE Holder**

Protects the mixer from short circuits and other abnormal operations. If the power source indicator LED does not light up and power switch is "ON", please check the fuse. If it is blown, replace it with an identical size and value.

**12. CROSSFADER and ASSIGN Selectors**

This horizontal slider provides clean segues between the source assigned by the left assign knob to the source assigned by the right assign knob, and vice versa. At the centre crossfade position, both inputs will be heard (without loss or gain of level) through the mixer output.

**IMPORTANT NOTE:** Any other input channel that is not assigned to the crossfader can be brought into the mix at any time by bringing up the input fader level. Further, if the crossfader is reassigned during the mix, and the same input channel is selected as the opposite side of the crossfader, both inputs will be nulled and silence will occur.

**13. Three Band Graphic EQUALIZER**

Use these equalisers to make adjustments to the sound of the mix. They can compensate for sound quality differences in the source material, or differences in room acoustics. Each EQ has 12dB of boost or cut.

**14. CH1,2,3 and PGM CUE MONITOR Buttons**

These buttons determine which source is heard in the headphones and seen on VU meters. These sources are prefader (before EQ). The Cue level is unaffected by individual channel faders.

**15. PHONES Output**

Connect a pair of stereo headphones to this jack using a stereo 1/4" phone plug.

**16. PHONES Level**

This knob controls the volume of the signal heard through the headphones.

**17. PGM Switch**

This switch when selected presents the output signal of the mixer to the VU meters and headphone output.

**IMPORTANT NOTE:** To avoid misleading levels on headphones or VU meters, ensure that no cue select switches are active when using PGM switch.

**18. PHONO/LINE Push-button**

The push-button switches beside channel 1, 2 and 3 inputs change the input type from phono (RIAA) to line.

**19. LINE Inputs**

These inputs are unbalanced RCA phonos, connect stereo audio from Hi Fi VCRs, cassette and reel-to-reel tape decks, CD players, VDPs, Tuners, even synthesisers or other mixing consoles.

**20. PHONO (RIAA) Inputs**

These inputs are unbalanced RCA phonos. Use these only for turntables with moving magnet cartridges. Line level sources will overload these inputs. Moving coil cartridges require a separate head amp for optimum sound.

